

IN THE CLAIMS

The status of each claim in the present application is listed below.

Claims 1-29: (Canceled).

30. (Previously Presented) A double-stranded oligonucleotide comprising two strands of 19 to 23 nucleotides, each strand consisting, from 5' to 3', of a sequence of 17 to 21 ribonucleotides and two deoxyribo- or ribonucleotides, the 17 to 21 ribonucleotide RNA sequences of said strands being complementary and the two nucleotides of the 3' ends being protruding,

wherein the RNA sequence of the sense strand or positive strand is selected from the group consisting of a 17 to 21 ribonucleotide fragment of a transcript of a protein kinase CK2 beta-subunit which is included between positions 80-100, from the ATG codon, with reference to the human transcript sequence SEQ ID NO: 90, and a 17 to 21 ribonucleotide fragment having at least 80 % identity with the preceding fragment,

wherein the sequence of the sense strand or positive strand is selected from the group consisting of the sequences SEQ ID NO: 67, 83 and 86, and

wherein the double-stranded oligonucleotide inhibits specifically more than 80% of the expression of the protein kinase CK2 beta-subunit and of the corresponding mRNA in human cell culture at a concentration of between 1 and 200 nM.

31. (Previously Presented) The double-stranded oligonucleotide as claimed in Claim 30, wherein each of the strands further comprises a phosphate group in the 5' position and a hydroxyl group in the 3' position.

32. (Previously Presented) The double-stranded oligonucleotide as claimed in Claim 30, wherein said two protruding nucleotides of the 3' ends are identical.

33. (Previously Presented) A single-stranded oligonucleotide consisting of the antisense strand or negative strand of the double-stranded oligonucleotide as claimed in Claim 32.

34. (Previously Presented) The oligonucleotide as claimed in Claim 30, which is a stabilized oligonucleotide.

Claims 35-47: (Canceled).

48. (New) A hairpin oligoribonucleotide comprising the sense and antisense strands of the double-stranded oligoribonucleotide as claimed in Claim 30 with two ribonucleotides at their 3' ends.

49. (New) A product containing at least one oligoribonucleotide as claimed in Claim 30, and an antiviral active ingredient, as a combined preparation for simultaneous, separate or sequential use, in the treatment of viral diseases.

50. (New) A product containing at least one oligonucleotide as claimed in Claim 30, and an anticancer active ingredient, as a combined preparation for simultaneous, separate or sequential use, in the treatment of cancer.

51. (New) A cassette for the expression of a siRNA or a hairpin RNA, comprising an isolated DNA sequence consisting of a DNA sequence encoding (i) the sense or antisense strand or both strands of the oligoribonucleotide as claimed in Claim 30 or (ii) an hairpin RNA comprising the sense and antisense strands of said oligoribonucleotide with two ribonucleotides at their 3' ends, wherein said DNA sequence is operably linked to an inducible or noninducible promoter and a transcription terminator.

52. (New) A vector for the expression of a siRNA or a hairpin RNA, comprising an isolated DNA sequence consisting of a DNA sequence encoding (i) the sense or antisense strand or both strands of the oligoribonucleotide as claimed in Claim 30 or (ii) an hairpin RNA comprising the sense and antisense strands of said oligoribonucleotide with two ribonucleotides at their 3' ends.

53. (New) A eukaryotic or prokaryotic cell, wherein the eukaryotic or prokaryotic cell is modified with oligonucleotide as claimed in Claim 30.

54. (New) A pharmaceutical composition, comprising at least one oligonucleotide as claimed in Claim 30, one hairpin RNA comprising the sense and antisense strands of said oligoribonucleotide with two ribonucleotides at their 3' ends or one expression vector thereof comprising an isolated DNA sequence consisting of a DNA sequence encoding said oligoribonucleotide or hairpin RNA.

55. (New) The pharmaceutical composition as claimed in Claim 54, wherein said oligonucleotide, hairpin RNA or vector is associated with at least one substance that makes it possible to cross the plasma membrane.

56. (New) The pharmaceutical composition as claimed in Claim 54, wherein said oligonucleotide, hairpin RNA or vector is associated with at least one substance that allows targeting into cells, tissues or organs.

57. (New) The pharmaceutical composition as claimed in Claim 54, wherein said oligonucleotide, hairpin RNA or vector is combined with at least one antiviral or anticancer agent.

58. (New) The pharmaceutical composition as claimed in Claim 54, comprising a mixture of several oligonucleotides or hairpin RNA, or else one or more expression vectors for said mixture of oligonucleotides or hairpin RNA.

59. (New) The pharmaceutical composition as claimed in Claim 54, comprising a mixture of at least one oligonucleotide specific for a protein kinase CK2 alpha-subunit, at least one oligonucleotide specific for a protein kinase CK2 alpha'-subunit and at least one oligonucleotide specific for a protein kinase CK2 beta-subunit.